



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Nicholas Leventis et al.

Title: METHODS AND COMPOSITIONS FOR PREPARING SILICA AEROGELS

Docket No.: 2416.007US1

Serial No.: 10/643,578

Filed: August 18, 2003

Due Date: N/A

Examiner: John M. Cooney

Group Art Unit: 1711

MS Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

☒ Return postcard.

☒ Supplemental Information Disclosure Statement (2 pgs.), Form 1449 (3 pgs.), and copies of 39 cited documents.

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SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

Customer Number 21186

By: Monique M. Perdok Shonka
Atty: Monique M. Perdok Shonka
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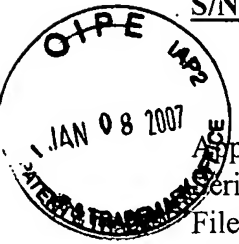
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(GENERAL)

S/N 10/643,578

PATENT



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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Supplemental Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. § 1.97(c)(2), Applicants hereby authorize the Commissioner to charge the fee of \$180.00 as set forth in 37 C.F.R. § 1.17(p), to Deposit Account No. 19-0743. Please charge any additional fees or credit any overpayment to Deposit Account No. 19-0743.

01/09/2007 AMOHDAF1 00000029 190743 10643578

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The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

NICHOLAS LEVENTIS ET AL.

By their Representatives,

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Date Jan 3, 2006 By Monique M. Perdok Shonka
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Complete if Known

Application Number	10/643,578
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First Named Inventor	Leventis, Nicholas
Group Art Unit	1711
Examiner Name	Cooney, John

Sheet 1 of 3

Attorney Docket No: 2416.007US1

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		ARMAND, A. C., et al., "Caractérisation Acoustique et Mécanique des Aérogels de Silice [Acoustic and Mechanical Characterization of Silica Aerogels]", <u>Journal de Physique IV, Colloque C1, supplément au Journal de Physique III, Vol. 2, (1992), C1-759 -- C1-762</u>	
		BRÜESCH, P., et al., "Electrical and Infrared Dielectrical Properties of Silica Aerogels and of Silica-Aerogel-Based Composites", <u>Applied Physics A - Solids and Surfaces, (1993), 329-337</u>	
		BÜTTNER, D., et al., "Thermal Loss Coefficients of Low-Density Silica Aerogel Tiles", <u>Solar Energy, 40(1), (1988), 13-15</u>	
		CAPS, R., et al., "Thermal Transport in Monolithic Silica Aerogel", <u>Revue de Physique Appliquée, Colloque C4, supplément au no. 4, (1989), C4-113 -- C4-118</u>	
		COURTENS, E., et al., "Structure and Dynamics of Silica Aerogels", <u>Philosophical Magazine B, 65(2), (1992), 347-355</u>	
		CROSS, J., et al., "Mechanical Properties of SiO ₂ - Aerogels", <u>Revue de Physique Appliquée, Colloque C4, Supplément au no. 4, (1989), C4-185 -- C4-190</u>	
		DA SILVA, A., et al., "Properties of Water Adsorbed in Porous Silica Aerogels", <u>Journal of Non-Crystalline Solids, 145, (1992), 168-174</u>	
		DAMRAU, U., et al., " ²⁹ Si MAS-NMR Investigations of Silica Aerogels", <u>Journal of Non-Crystalline Solids, 145, (1992), 164-167</u>	
		DEVREUX, F., et al., "NMR Determination of the Fractal Dimension in Silica Aerogels", <u>Physical Review Letters, 65(5), (1990), 614-617</u>	
		EHRBURGER-DOLLE, F., et al., "Relations Between the Texture of Silica Aerogels and Their Preparation", <u>Journal of Non-Crystalline Solids, 186, (1995), 9-17</u>	
		EMMERLING, A., et al., "Relationship Between Optical Transparency and Nanostructural Features of Silica Aerogels", <u>Journal of Non-Crystalline Solids, 185, (1995), 240-248</u>	
		EMMERLING, A., et al., "Structural Modifications of Highly Porous Silica Aerogels Upon Densification", <u>J. Appl. Cryst., 24, (1991), 781-787</u>	
		GROSS, J., et al., "Mechanical Properties of SiO ₂ Aerogels", <u>J. Phys. D: Appl. Phys., 21, (1988), 1447-1451</u>	
		GROSS, J., et al., "Ultrasonic Evaluation of Elastic Properties of Silica Aerogels", <u>Materials Science and Engineering A, 168, (1993), 235-238</u>	
		GROSS, J., et al., "Ultrasonic Velocity Measurements in Silica, Carbon and Organic Aerogels", <u>Journal of Non-Crystalline Solids, 145, (1992), 217-222</u>	
		HDACH, H., et al., "Effect of Aging and pH on the Modulus of Aerogels", <u>Journal of Non-Crystalline Solids, 121, (1990), 202-205</u>	
		HENCH, L. L., et al., "The Sol-Gel Process", <u>Chemical Reviews, 90(1), (1990), 33-72</u>	

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Group Art Unit	1711
Examiner Name	Cooney, John

Sheet 2 of 3

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OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		HRUBESH, L. W., et al., "Thermal Properties of Organic and Inorganic Aerogels", <u>J. Mater. Res.</u> , 9(3), (1994), 731-738	
		HRUBESH, L. W., et al., "Thin Aerogel Films for Optical, Thermal, Acoustic, and Electronic Applications", UCRL-JC-117553 Preprint, <u>International Symposium on Aerogels 4</u> , (September 19-21, 1994, Berkeley, CA), (September, 1994), 17 pgs.	
		HUSING, N., et al., "Aerogels - Airy Materials: Chemistry, Structure, and Properties", <u>Angewandte Chemie International Edition</u> , 37, (1998), 22-45	
		JANG, K. Y., et al., "Study of Sol-Gel Processing for Fabrication of Hollow Silica-Aerogel Spheres", <u>J. Vac. Sci. Technol. A</u> , 8(3), (May/June, 1990), 1732-1735	
		KIM, N. K., et al., "Fabrication of Hollow Silica Aerogel Spheres by a Droplet Generation Method and Sol-Gel Processing", <u>J. Vac. Sci. Technol. A</u> , 7(3), (1989), 1181-1184	
		MORRIS, C. A., et al., "Silica Sol as a Nanoglue: Flexible Synthesis of Composite Aerogels", <u>Science</u> , 284, (1999), 622-624	
		NOVAK, B. M., et al., "Low-Density, Mutually Interpenetrating Organic-Inorganic Composite Materials via Supercritical Drying Techniques", <u>Chem. Mater.</u> , 6, (1994), 282-286	
		PAJONK, G. M., "Some Catalytic Applications of Aerogels for Environmental Purposes", <u>Catalysis Today</u> , 52, (1999), 3-13	
		PHALIPPOU, J., et al., "Fracture Toughness of Silica Aerogels", <u>Revue de Physique Appliquée, Colloque C4, Supplément au no. 4</u> , (1989), C4-191 - C4-196	
		PHALIPPOU, J., et al., "Glasses From Aerogels - Part 1. The Synthesis of Monolithic Silica Aerogels", <u>Journal of Materials Sciences</u> , 25(7), (1990), 3111-3117	
		POSSELT, D., et al., "The Thermal Conductivity of Silica Aerogel in the Phonon, the Fracton and the Particle-Mode Regime", <u>Europhysics Letters</u> , 16(1), (1991), 59-65	
		ROGACKI, G., et al., "Diffusion of Ethanol-Liquid CO ₂ in Silica Aerogel", <u>Journal of Non-Crystalline Solids</u> , 186, (1995), 73-77	
		SCHAEFER, D. W., et al., "Structure and Topology of Silica Aerogels", <u>Journal of Non-Crystalline Solids</u> , 145, (1992), 105-112	
		SLEATOR, T., et al., "Low-Temperature Specific Heat and Thermal Conductivity of Silica Aerogels", <u>Physical Review Letters</u> , 66(8), (1991), 1070-1073	
		TSOU, P., "Silica Aerogel Captures Cosmic Dust Intact", <u>Journal of Non-Crystalline Solids</u> , 186, (1995), 415-427	
		TULLO, A. H., "Stiff Competition - Long-Fiber-Reinforced Thermoplastics are Gathering Strength in Key Industries", <u>Chem. & Eng. News</u> , (January 28, 2002), 21-22	
		WOIGNIER, T., et al., "Different Kinds of Fractal Structures in Silica Aerogels", <u>Journal of Non-Crystalline Solids</u> , 121, (1990), 198-201	

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		WOIGNIER, T., et al., "Glasses From Aerogels. Part 2 - The Aerogel-Glass Transformation", (1990), 3118-3126	
		WOIGNIER, T., et al., "Mechanical Strength of Silica Aerogels", <u>Journal of Non-Crystalline Solids</u> , 100, (1988), 404-408	
		WOIGNIER, T., et al., "Scaling Law Variation of the Mechanical Properties of Silica Aerogels", <u>Revue de Physique Appliquée, Colloque C4, Supplément au no. 4</u> , (1989), C4-179 -- C4-184	
		WOIGNIER, T., et al., "Section 13. Rheological, Mechanical and Other Properties - Evolution of Mechanical Properties During the Alcogel-Aerogel-Glass Process", <u>Journal of Non-Crystalline Solids</u> , 147 & 148, (1992), 672-680	
		YIM, T.-J., et al., "Fabrication and Thermophysical Characterization of Nano-Porous Silica-Polyurethane Hybrid Aerogel by Sol-Gel Processing and Supercritical Solvent Drying Technique", <u>Korean J. Chem. Eng.</u> , 19(1), (2002), 159-166	

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